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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/004,535      | 12/06/2001  | Jong-ryull Kim       | 1293.1286           | 4414             |

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT PAPER NUMBER

2656

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/004,535             | KIM ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jorge L. Ortiz-Criado  | 2656                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-16 are rejected under 35 U.S.C. 102(b) as anticipated by Yang U.S. Patent No. 6,043,911.

Regarding claims 9 and 13, Yang discloses an optical recording and reproducing apparatus to control the balance of the photodetector, comprising:

an optical module having a first and a second light source to respectively emit first and second lights of different wavelengths (See col. 3, lines 1-27; Figs. 2, 4,5,6)

a “movable” holographic optical element to regulate positioning of one of the first and second lights emitted from said optical module (see col. 3, lines 44-48; Figs. 2,3,4,5,6, ref# 38) (Inherently has to be movable/adjustable before being placed in order to optimally adjust the path to match the path of the other one of the first and second lights and to progress along the same direction);

an optical path changing unit to receive and change the path of incident light received from said holographic optical element (See Figs. 4,5,6, ref# 46);

an objective lens to receive incident light received from said optical path changing unit and focus the same on the optical recording medium (See Figs. 4,5,6, ref# 44); and

a photodetector to receive first and second light spots from the light reflected from the optical recording medium and transmitted through said objective lens and said optical path changing unit (See Figs. 4,5,6, ref# 42) ; wherein the photodetector is “movable/adjustable” to regulate positioning of the other one of said first and second light spots (inherently has to be movable/adjustable before being placed)

wherein the holographic optical element is between the optical module and the optical path changing unit (see col. 3, lines 44-48; Figs. 2,3,4,5,6, ref# 38).

Regarding claims 10 and 14, Yang would show wherein said holographic optical element is movable in an optical axis direction to move the one of said first and second light spots received by said photodetector so that the one light spot is concentric with said photodetector (the optical element inherently has to be movable/adjustable certain directions during assembly in order to optimally adjust the path to match the path).

Regarding claims 11, 15 and 16, Yang shows wherein said holographic optical element is rotatable about an optical axis at a predetermined angle to move the one of said first and second light spots received by said photodetector so that the one light spot is concentric with said photodetector and movable in an optical axis direction (the optical element inherently has to be movable/adjustable in certain directions before being placed in order to optimally adjust the path to match the path).

Regarding claim 12, a grating positioned between the holographic optical element and the optical path-changing unit (the use of a grating in front of light sources and between path-changing units is well known in the art as to obtain three beams method technique, the examiner takes Official Notice, see U.S. Patent No. 6,567,355 to Izumi et al., see also Applicant's admitted prior art element 25 of Fig. 1).

Regarding claims 1-8, Method claims 1-8 are drawn to the method of using the corresponding apparatus claimed in claims 9-16. Therefore method claims 1-8 correspond to apparatus claims 9-16 and are rejected for the same reasons of anticipation as used above.

### ***Response to Arguments***

2. In regard to claims 9, Applicant's arguments filed 07/21/2005 have been fully considered but they are not persuasive.

Applicants argues that the HOE movable cannot be inherent, because the examiner must provides basis in fact and or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art, and that the teachings Yang's weight Office's contention and prelude the Office's, because Yang's HOE is fixed.

The examiner disagrees with the Applicant because, Yang discloses wherein the holographic optical element passes the light of one of the first and second lights without change, but diffracts and corrects the progressive path of one of the first and second lights

in order to match the path of the other one of the first and second lights and to progress along the same direction. Hence the two lights are received and converged and matched into the same photodetector surface area, as shown. Therefore, if the optical element is moved/adjusted/changed, the progressive path of one of the first and second lights inherently would be moved/changed/adjusted as well.

The HOE of Yang is placed to correct and to match the progressive path of the two lights. In order to match the path in the assembly of such pickup, the HOE has to be placed and assembled in the pickup in the position where the match is obtained, which as a part of an assembly process the elements are positioned and then fixed, by some sort of manual or machine process. Therefore, it is inherent that some sort of “movement” to the HOE has to be performed in order to be assembled. Hence, it is reasonable to conclude that a teaching of the HOE that after being placed as to obtain the matching, an HOE movable necessary flows from the teaching of Yang.

The claims given the broadest reasonable interpretation does not limit the claim invention as to How the HOE is moved, When is moved and/or What is moves it. The only requirement is that the HOE is movable.

Furthermore, Applicant’s own invention as disclosed in the specification, requires that the movement is performed in an assembly process as well (see page 7 [0024]). Applicant’s specification is completely silent about How is moved or What is moving the HOE. It appears that the HOE of the Applicant is also fixed, because the movement is merely a placement of the element in an assembly operation.

The examiner further provides the Applicant with *extrinsic* evidence of U.S. Patent No. 6,567,355 to Izumi et al. which makes clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill, and provides a basis to reasonably support the determination that the inherent characteristic necessarily flows from the teachings of the applied prior art.

Izumi et al. teaches that the “moving/adjusting” of an holographic optical element (HOE) in certain optical axis directions, the optical path change/move/adjust the progressive path of one of the first and second lights so that a center of one of said first and second light spots, hence received from the second light source is concentric with the center of the photodetector. By doing so the holographic optical element would be placed in position in the assembly process prior to such fixing in order to match the progressive path of the two lights.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER